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REMARKS

The claimed invention is directed to a molding composition that contains polycarbonate resin, modified clay and carboxylic acid. The modifier of the clay is a quaternary ammonium salt or quaternary phosphonium salt (herein SALT). The inventive composition features impact performance that is significantly better than a corresponding composition that includes **no** acid.

The tables below are extracts of the data tabulated in pages 8 and 9 of the application.

Table 1

Example	2	6	3	7
Polycarbonate, wt%	97.5	97.25	95	94.5
SALT-Modified Clay, wt%	2.5	2.5	5	5
Acid, wt%	--	0.25	--	0.5
Impact Performance				
Notched Izod, ft-lb/in	1	3	0.6	2
Unnotched Izod, ft-lb	57.1	No break	13.5	No Break
Multi-axial impact, ft-lb	27.6	46.1	2.3	40.7
Fracture mode	shatter	Ductile	Brittle	Ductile

The results show that compositions containing polycarbonate and SALT-modified clay (examples 2 and 3) exhibit inferior impact performance in comparison to corresponding compositions that additionally contain the claimed acid (examples 6 and 7).

Additional comparisons entailing a different clay are presented in Table 2 below:

Table 2

Example	4	5	8	9
Polycarbonate, wt%	97.5	95	97.25	94.5
SALT-modified Clay, wt%	2.5	5	2.5	5
Acid, wt%	--	--	0.25	0.5
Impact Performance				
Notched Izod, ft-lb/in	1.5	0.5	1.7	1.3
Unnotched Izod, ft-lb	64.1	13.4	No Break	No Break
Multi-axial impact, ft-lb	39.7	2	49	40.6
Fracture mode	shatter	Brittle	Ductile	Ductile

The impact performance of Examples 4 and 5 that contain no acid are inferior to the examples that contain acid (examples 8 and 9).

Claims 1-8, 11 and 12 (all the claims) stand rejected under 35 U.S.C. 103(b) said to be unpatentable over U.S. Patent 6,610,770 (herein Ross I) in view of U.S. Patent 5,804,613 (Beall) further in view of U.S. Patent 6,380,295 (Ross II).

Ross I disclosed a flame retardant composition that contains (col.4, lines 4 et seq.)

> "an organic chemical/clay mixture prepared by the reaction of a smectite clay and one or more quaternary ammonium compounds **and/or optionally** one or more organic materials".

Beall disclosed intercalated layered material, including nano-sized clay and disclosed carboxylic acid monomers as an intercalate material.

Ross II disclosed a composition containing (a) clay, (b) SALT which reacts via ion exchange with the clay and (iii) a non-anionic organic material that intercalates with the clay.

The rejection is respectfully traversed.

Ross I disclosed (column 4, lines 5 -8) modified clay as prepared by reacting clay and SALT and optionally organic material.

That the "organic material" disclosed in Ross I is but **optional** is stated throughout that document - see column 5, line 48; column 8, line 47; column 10, line 30 and column 10, line 40.

Credible evidence presented in course of prosecution point to that the carboxylic acid of the present invention does not intercalate with clay. In view of this evidence (Declaration by Professor Manias), the materiality of Beall and that of Ross II in the present context is respectfully traversed.

The criticality of carboxylic acid to the impact performance of the claimed composition has been shown above. In as much as Ross I failure to appreciate, much less disclose such criticality, the rejection sounding in obviousness is clearly untenable and its retraction is urged.

Examiner's Response to Arguments presented in the Office Action of October 26, 2006 has been noted and compels the following rebuttal:

(I) As to Examiner contention relative to Claim 1 of Ross I:

Claim 1 refers to "c" as organic material that is capable of intercalating with "a", that is clay, or "reacting with component (c)" (sic).

Since "c" is thus said to react with itself, the text is undoubtedly erroneous. See Ross I (column 8, line 51) where the reaction is that of (c) with (b), SALT.

In traverse Applicants call attention to the evidence presented in prosecution that show that the claimed carboxylic acid does not intercalate with clay (Declaration by Professor Manaias) and does not react with SALT (Declaration by Dr. Chung).

(II) As to Examiner's statement that "the clay, the polymer and the acids are all necessary for the inventive composition of Ross et al."

Applicants respectfully assert that the statement is inconsistent with the facts as "acid" is not "necessary" but rather optional in accordance with Ross I. That acid is merely a permissible component has been noted throughout Ross I. (see column 4, lines 5 -8; column 5, line 48; column 8, line 47; column 10, line 30 and column 10, line 40).

Contrast this with the ample showing of criticality of acid in the context of the present invention.

(III) As to Examiner's statement that "applicants' result are (sic) not unexpected, but inherent in the composition of the primary reference".

Applicants respectfully note that the notion of "inherency" in the context of a rejection under section 103 is misplaced. Examiner failed to identify that composition disclosed by Ross I in which impact performance improves upon the inclusion of carboxylic acid.

The above is believed responsive to the Office Action and overcoming the stated rejection. Reconsideration of the application, withdrawal of the rejection and an early indication of the allowability of the claims are solicited.

Respectfully submitted,

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